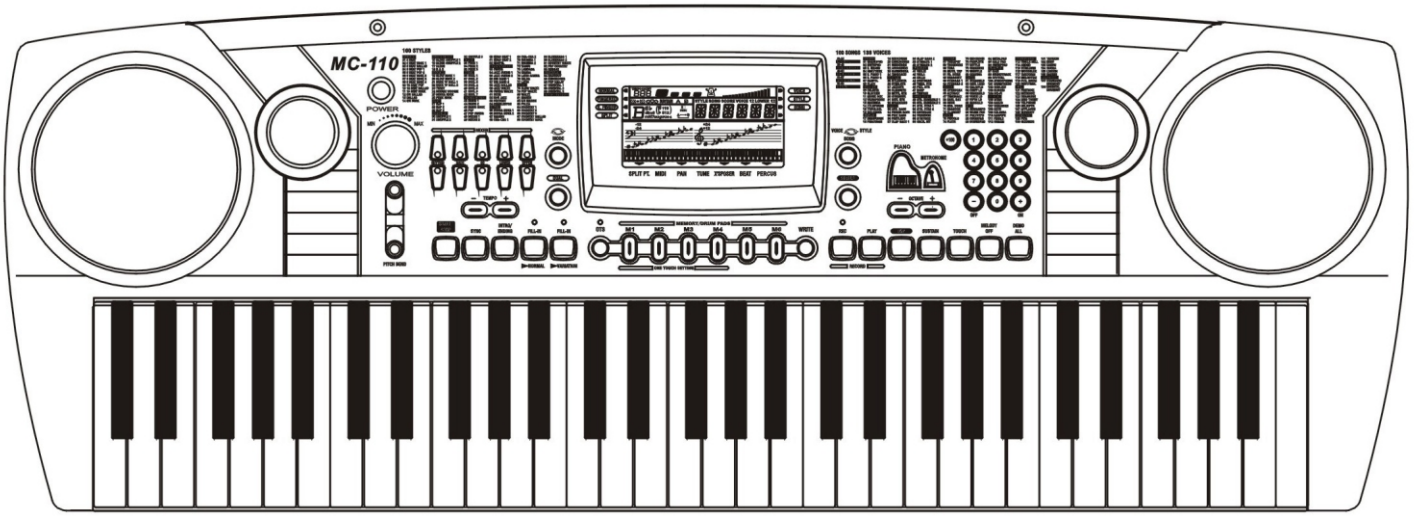
Electronic Keyboard

User's Manual



MC-110

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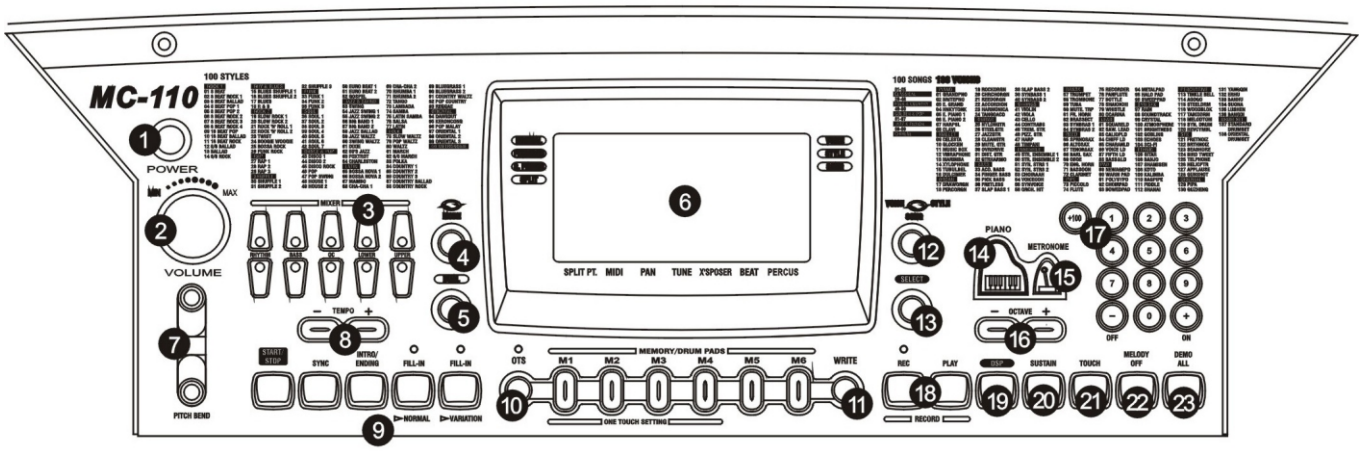
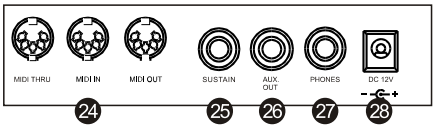
General Guide



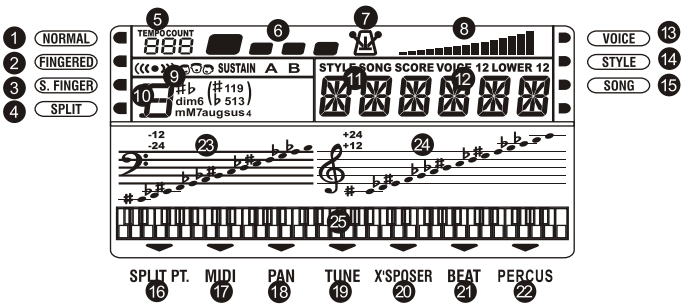
1. FRONT CABINET

1. POWER SWITCH
2. MASTER VOLUME
3. MIXER CONTROL
   - RHYTHM
   - BASS
   - OC
   - LOWER
   - UPPER
4. MODE
5. DUAL
6. LCD DISPLAY
7. PITCH BEND
8. TEMPO +/-
9. ACCOMPANIMENT CONTROL
   - START/STOP
   - SYNC
   - INTRO/ENDING
   - FILL IN TO NORMAL
   - FILL IN TO VARIATION
10. OTS
11. WRITE
12. VOICE/STYLE/SONG
13. SELECT
14. PIANO
15. METRONOME
16. OCTAVE +/-
17. NUMERIC KEYPAD
18. RECORD (REC/PLAY)
19. DSP
20. SUSTAIN
21. TOUCH
22. MELODY OFF
23. DEMO ALL



2. BACK CABINET JACK

24. MIDI IN/OUT/THRU JACKS
25. SUSTAIN JACK
26. AUX.OUT JACK
27. HEADPHONES JACK
28. DC 12V JACK



3. LCD DISPLAY

1. NORMAL
2. FINGERED
3. S.FINGER
4. SPLIT
5. TEMPO
6. BEAT
7. METRONOME
8. VOLUME
9. DSP
10. CHORD
11. STYLE
12. LOWER/VOICE 1/ VOICE 2
13. VOICE
14. STYLE
15. SONG
16. SPLIT PT.
17. MIDI CHAN.
18. PAN
19. TUNE
20. X'SPOSER
21. BEAT
22. PERCUS
23. BASS CLEF
24. TREBLE CLEF
25. KEYBOARD

Introduction

Thank you for purchasing the electronic keyboard. This keyboard provides you with the following features and functions:

- 136 PCM voices + Drum and Percussion Sounds
- 100 Styles
- 100 Demo Songs with playing along feature
- Auto Accompaniment with Normal, Fingered and Single Finger control modes
- One Touch Setting
- Record and Playback
- MIDI compatibility

Care of your keyboard

Your keyboard will give you years of playing pleasure if you follow the simple rules below:

- Do not expose the keyboard to the high temperature, direct sunlight, and excessive dust places
- Avoid physical shocks caused by dropping, bumping, or placing heavy objects on the keyboard.
- Never use cleaners such as alcohol or thinner to clean the keyboard.
- Always turn power off when making any connections.

Power Supply

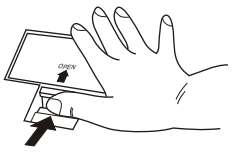
This keyboard can be powered by current from a standard household wall outlet (by using the specified AC adaptor) or by batteries. Always turn off the keyboard when you are not using it.

Using batteries

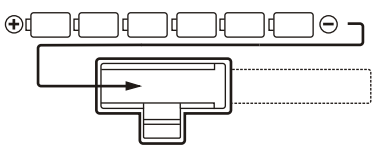
Always turn off the keyboard before loading or replacing batteries.

To load batteries:

1. Remove the battery compartment cover.



2. Load six "D size" (SUM-1 or R20) batteries into the battery compartment, being careful to follow the polarity markings on the cabinet.



3. Replace the compartment cover, make sure that it locks firmly in place.

Important battery information:

Any of the following symptoms indicate low battery power. Replace batteries as soon as possible whenever any of the following occurs.

- Dim, difficult to read display.
- Abnormally low speaker/headphone volume.
- Distortion of sound output.
- Sudden power failure when playing at high volume.
- Abnormal rhythm or demo song plays.
- Dimming of the display when playing at high volume.

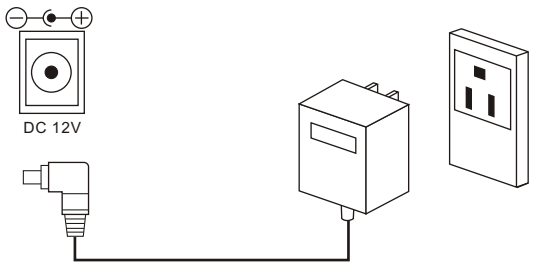
Cautions:

Improper handling of batteries can cause them to burst and leak, which creates the danger of personal injury or damage of the keyboard. Be sure to note the following precautions:

- Never mix batteries of different types.
- Never mix old batteries with the new ones.
- Replace batteries as soon as possible after any sign of running out.
- Remove the batteries from the keyboard when not using for an extended period of time.

Using the AC adaptor

Use only the specified AC adaptor for this keyboard. The adaptor shall be 12V DC output, 2200mA, and center positive type. Turn off the keyboard before you connect the adaptor into the AC wall outlet and the cord into the unit.



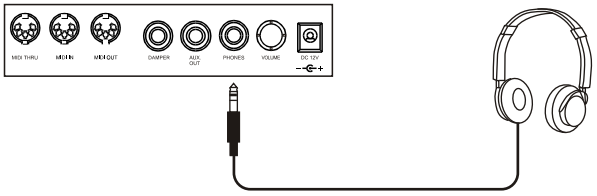
Cautions:

- Use only the specified AC adaptor. Use of another type of adaptor creates the danger of fire and electronic shock.
- For safety sake, unplug the AC adaptor from the wall outlet when leaving the keyboard unattended for a long time

Connections

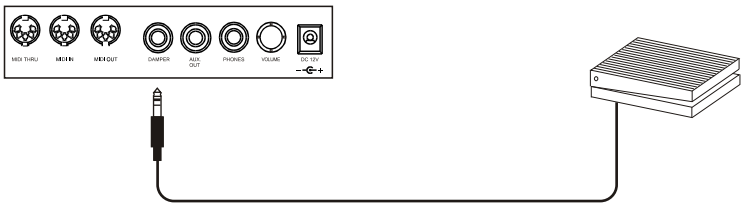
The headphones jack

A standard pair of stereo headphones can be plugged in **PHONES** jack for private practice or late night playing. The internal speaker system is automatically shut off when the headphones are plugged into the **PHONES** jack.



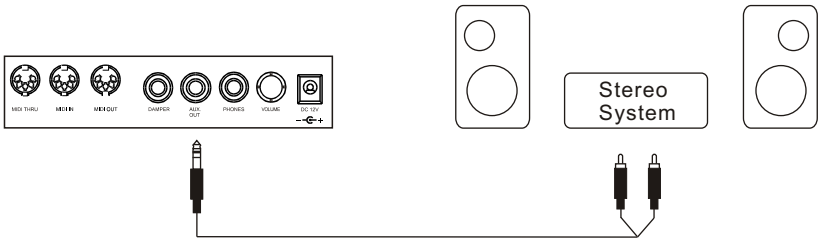
The sustain jack

An optional foot switch can be plugged into the **SUSTAIN** jack for sustain control. The foot switch functions like the pedal on a piano-press for sustain, release for normal sound.



The AUX.OUT jack

The **AUX.OUT** jack delivers the output of the keyboard for the connection to an external amplifier. Using audio cord, plug into **AUX.OUT** jack located on the rear panel. Then plug the other end of the cord into **LINE IN** or **AUX.IN** of the amplifier.



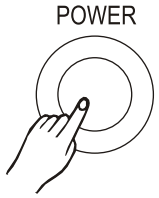
The MIDI IN, OUT, THRU jacks

The **MIDI IN** connector receives MIDI data from an external MIDI device. The **MIDI OUT** connector transmits MIDI data generated by the keyboard to an external MIDI device. The **MIDI THRU** connector transmits MIDI data from an external MIDI device to another external MIDI device.

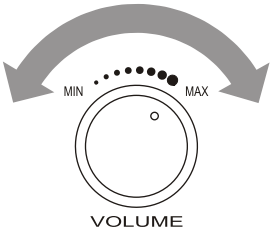
Play demo songs

A selection of 100 demo songs come built-in for your listening pleasure or play along fun. They will give you a good idea of what your keyboard can do.

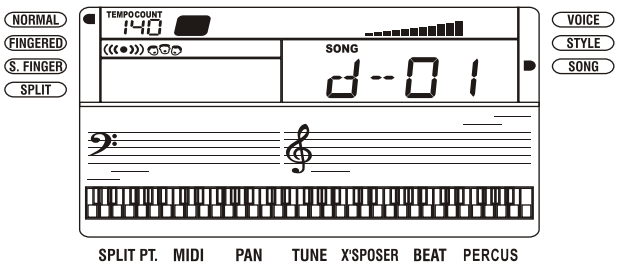
1. Turn the power ON by pressing the **[POWER]** switch.

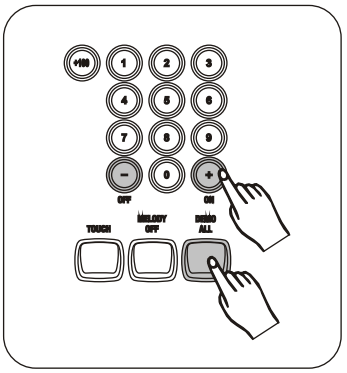


2. Adjust the volume to a appropriate level by turning the **[VOLUME]** switch.



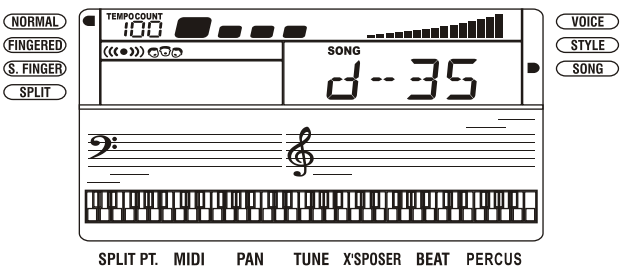
3. Press the **[DEMO ALL]** button . The keyboard starts to play the demo songs. While the keyboard is playing the demo song, you can press the **[-/OFF]** or **[+/ON]** button to step to the next demo song in the corresponding direction . Press the **[DEMO ALL]** button again to stop the play.

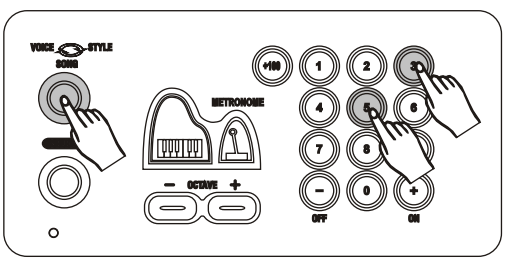




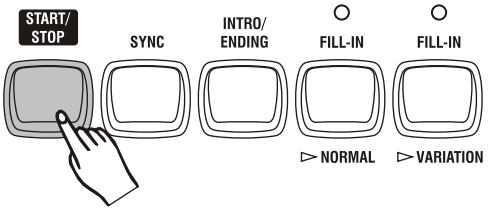
Listen to a particular demo song

1. Select the SONG mode by pressing the **[VOICE/STYLE/SONG]** button.
2. Use the NUMBER buttons to input the two-digit number of a demo song. For example, to select 35 input 3 and then 5.





3. Press the **[START/STOP]** button to start playing the demo song. The song will play in endless loop, re-starting after it reaches the end. Press the **[START/STOP]** button again to stop the play.



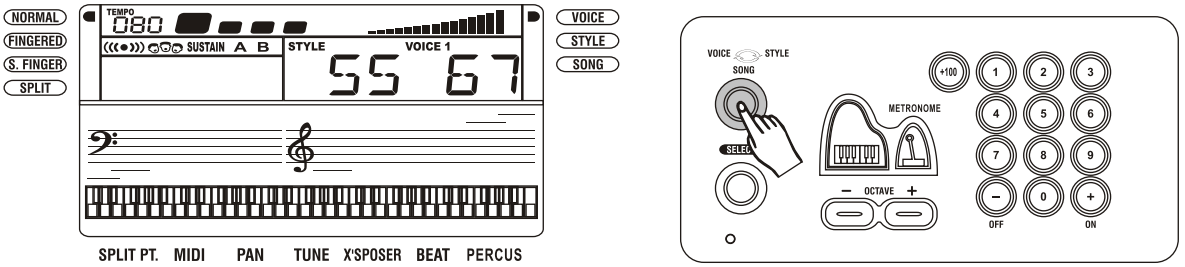
Play along with the demo song

1. While the keyboard is playing the demo song, you can press the **[MELODY OFF]** button to cut off the melody part of the demo song.
2. Use the **[TEMPO]** buttons to adjust the tempo of the selected demo song.
3. Pressing the **[MELODY OFF]** button again, the melody part of the demo song comes back.

Basic Operation

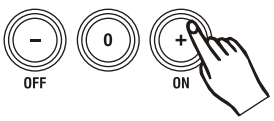
Selecting & playing voices

The keyboard has 136 PCM voices and percussion kits that you can select and play on the keyboard. Before you select a voice, make sure you have selected VOICE mode. Press the **[VOICE/STYLE/ONG]** button to select the VOICE mode.



The [-/OFF] and [+/ON] buttons:

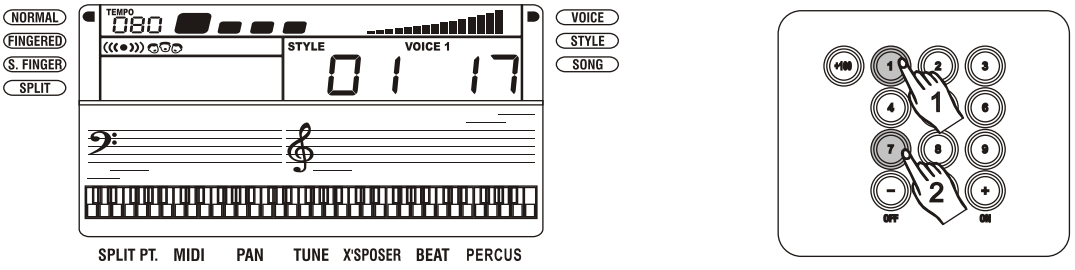
When the **VOICE** mode is selected, these buttons step up or down through the voices list.Press these buttons briefly to step to the next voice in the corresponding direction, or hold the button to scroll rapidly through the voices in the corresponding direction. The selected voice number shows in the display.



The number buttons:

The number buttons can be used to directly enter the number of the desired voice, thereby immediately selecting that voice without having to step through a number of other voices.

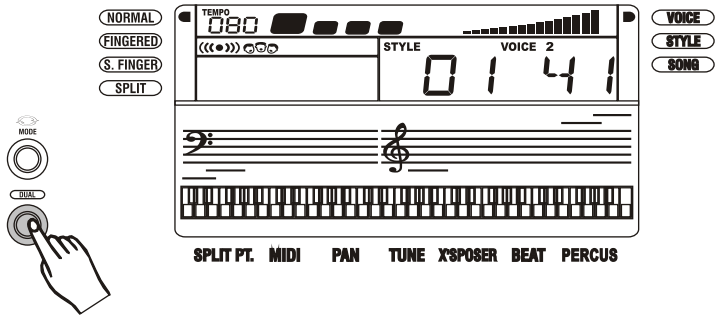
Two-digit voice number are selected simply by entering the two digits in sequence--e.g. to select voice number 17, briefly press the **[1]** button and then the **[7]** button.



Three digit voice number are entered by first pressing the **[+100]** button, then press the remaining two digits in sequence.

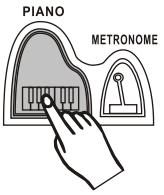
Dual voice:

To create a dual voice effect, use the number buttons to input the first voice digits. Pressing the **[DUAL]** button, a word **VOICE** 2 appears in the display. Then input the selected second voice digits. Press the **[DUAL]** button again to turn this function off, and a word **VOICE 1** appears in the display.



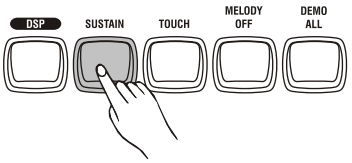
Instant select Piano voice:

You can select the piano voices immediately by pressing the **[PIANO]** button. Press the **[PIANO]** button again to return to the previously selected voice.



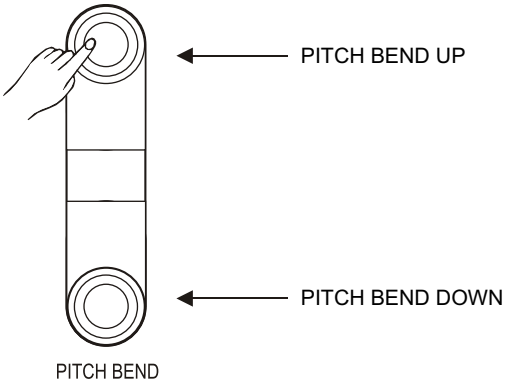
Sustain voice effect

You can add a sustain voice effect to the overall of the sound simply by pressing the **[SUSTAIN]** button. Press the **[SUSTAIN]** button again to turn this function off.



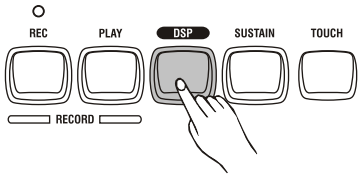
Pitch Bend

The **[PITCH BEND]** buttons allow the pitch of the notes played on the keyboard to be bend up or down-press and hold either the **[PITCH BEND UP]** or **[PITCH BEND DOWN]** button.



Digital Signal Processor (DSP)

The Digital Signal Processor (DSP) consist of two units (Reverb and Chorus) which process the Performances with Reverb and Chorus effects. To turn on/off the DSP, simply press the DSP button.

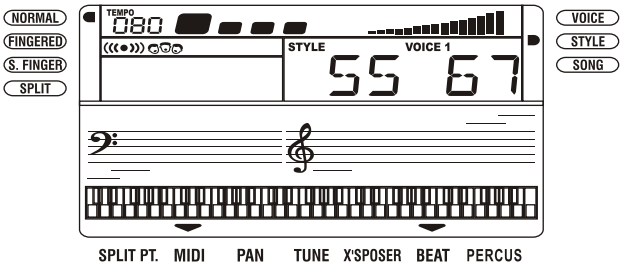


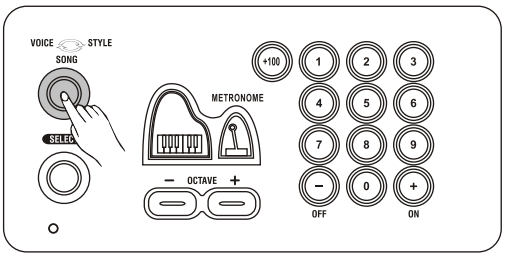
The Reverb and Chorus icon

Auto-Accompaniment

Selecting a style

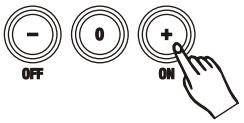
The keyboard has 100 different auto-accompaniment styles that can be used to provide fully-orchestrated accompaniment. Its sophisticated Auto Accompaniment system can provide automated bass and chord backing that is perfectly matched to the selected accompaniment style. Before you select a style, make sure you have selected **STYLE** mode. Press the **[VOICE/STYLE/SONG]** button to select the **STYLE** mode.





The [-/OFF] and [+/ON] buttons:

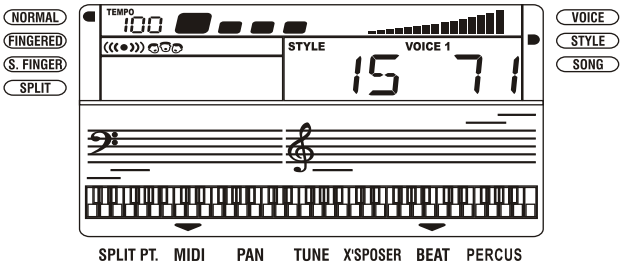
When the **STYLE** mode is selected, these buttons step up or down through the styles list. Press these buttons briefly to step to the next style in the corresponding direction, or hold the button to scroll rapidly through the styles in the corresponding direction. The selected style number shows in the display.

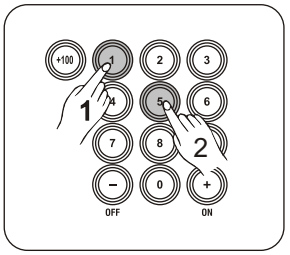


The number buttons:

The number buttons can be used to directly enter the number of the desired style, thereby immediately selecting that style without having to step through a number of other styles.

To select a style simply enter the two digits in sequence--e.g. to select style number 15, briefly press the **[1]** button and then the **[5]** button.





Playing the selected style

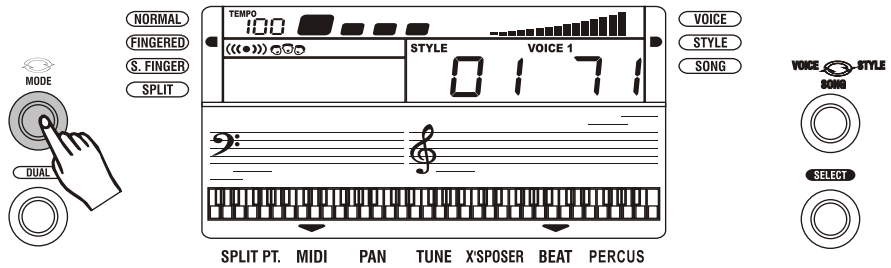
1. Press the [START/STOP] button to start playing of the style.
2. Press the [START/STOP] button again to stop the play.

Changing the tempo

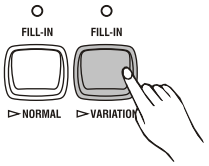
You can speed up or down the tempo simply by pressing the [TEMPO] buttons. Pressing the two buttons simultaneously, it returns to its original default.

Using Auto Accompaniment

1. Set the **MODE** to **FINGERED** or **SINGLE FINGER** mode by using the **[MODE]** button.



2. Select the **NORMAL** or **VARIATION** accompaniment pattern by pressing the **[FILL-IN/ NORMAL]** or **[FILL-IN/VARIATION]** button.



3. Press the **[START/STOP]** button to start play of the currently selected style.
4. Play a chord. The actual procedure you should use play a chord depends on the current **MODE** selected. Refer to the following appendix for details on the chord play.

   FINGERED.....Appendix A
   SINGLE FINGER.....Appendix B

FINGERED SINGLE FINGER

4. To stop Auto accompaniment play, press the **[START/STOP]** button again.

Variations

While playback:

Each styles has two accompaniment patterns, NORMAL and VARIATION. The NORMAL and VARIATION accompaniment patterns can be selected at any time during playback by pressing the corresponding button. Whenever you press the [FILL-IN/NORMAL] or [FILL-IN/VARIATION] button during playback, the keyboard will generate an appropriate fill in pattern which will smoothly connect the current pattern to the selected pattern even if it is the same pattern.

To use synchro start the accompaniment

1. Press the [SYNC] button to put the keyboard into synchro start standby.
2. Play a chord on the accompaniment keyboard and the style pattern starts to play auto matically.

To start the accompaniment with introductory pattern

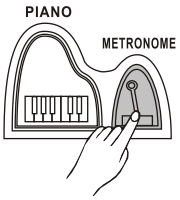
1. Press the **[INTRO/ENDING]** button to put the keyboard into introduction start standby.
2. Press the **[START/STOP]** button, and then play a chord on the accompaniment keyboard. The keyboard plays an introductory pattern and then the selected auto-accompaniment.

To stop the accompaniment with ending phrase

While the keyboard is playing the auto-accompaniment, you press the **[INTRO/ENDING]** button The keyboard will play an ending phrase and then stop the play.

Playing the metronome

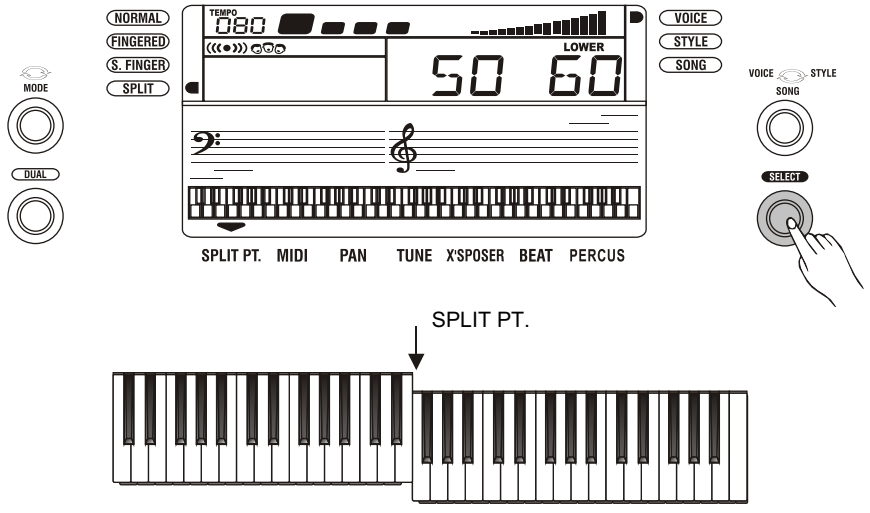
You can play the metronome simply by pressing the **[METRONOME]** button. To stop the play, press the **[METRONOME]** button again.



Note:
While the keyboard is playing the metronome, you can select other style playing simply by entering the two-digit number of the style. (Make sure the keyboard is in **STYLE** mode.)

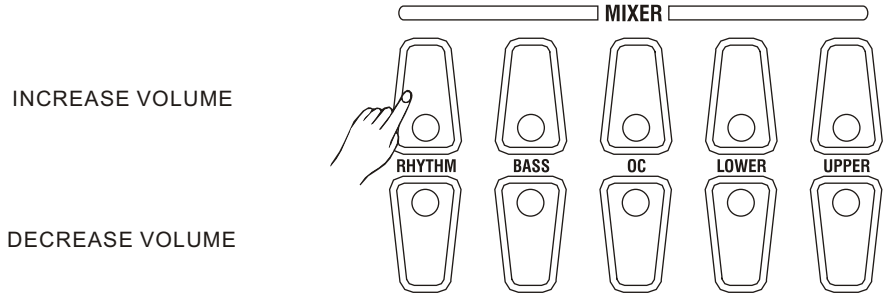
Changing the accompaniment split point

Press the **[SELECT**] button as many time as necessary until the arrowhead in the display appears above at **SPLIT PT.** Then press the key you want to assign as the split point. The key number of the key you press shows in the display.



Accompaniment track control

The keyboard has 5 accompaniment tracks--**RHYTHM, BASS, ORCHESTRATION, LOWER, VOICE, UPPER VOICE.** You can use the buttons at the **MIXER** section to control the volume level of each track.

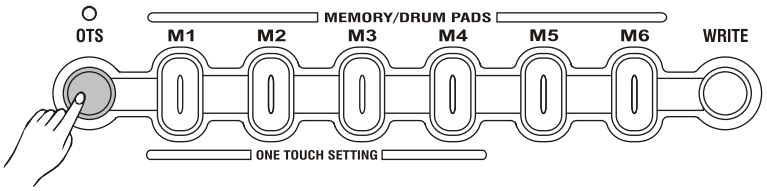


When you press the **INCREASE VOLUME** and **DECREASE VOLUME** buttons simultaneously, the keyboard will shut down the volume of the selected accompaniment track. Press the two buttons simultaneously again to turn the accompaniment track volume on.

One Touch Setting

One Touch Setting lets you instantly select the appropriate panel settings suitable for the current style. Each style (100 styles) contains four variations. This means that you can freely use 400 different panel settings.

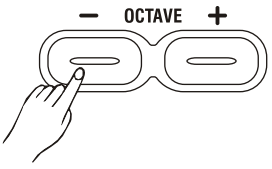
1. Press the **[OTS]** button.
2. Press the **[START/STOP]** button to play the selected style. While playing the style, you can press the one of the **ONE TOUCH SETTING** buttons--**[M1], [M2], [M3], [M4]** to select the appropriate settings.
3. Press the **[OTS]** button again to turn this function off.



Overall keyboard control

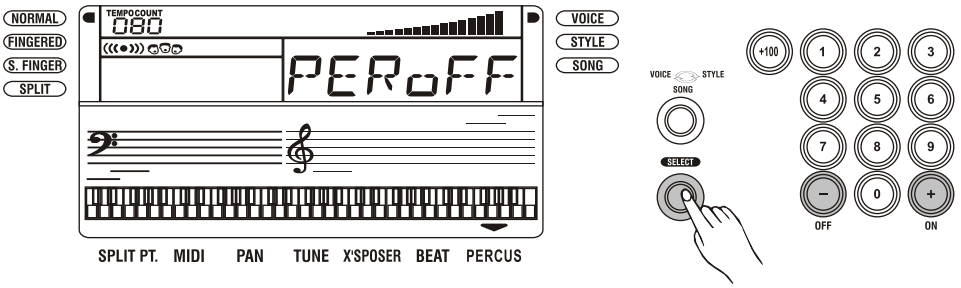
Change the keyboard octave

Shift the keyboard voice up or down by one or two octaves by pressing the **OCTAVE** buttons.



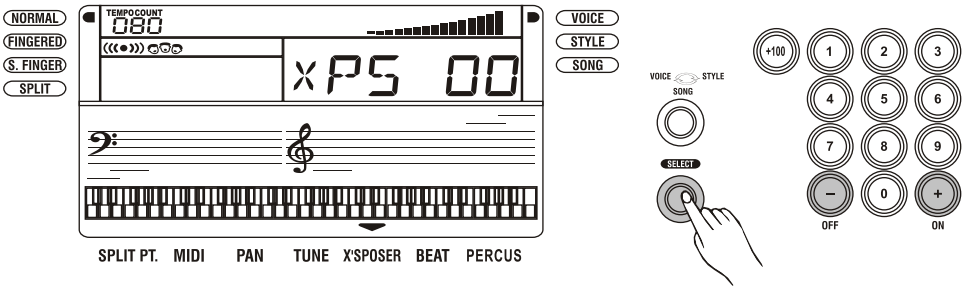
Play the drumpads

Press the **[SELECT]** button as many times as necessary until the arrowhead appears at the above of **PERCUS**. Then press the **[+/ON]** button. The six **MEMORY/DRUM PADS** will be functioned as the drumpads. To turn this function off, repeat the above procedure then press the **[-/OFF]** button.



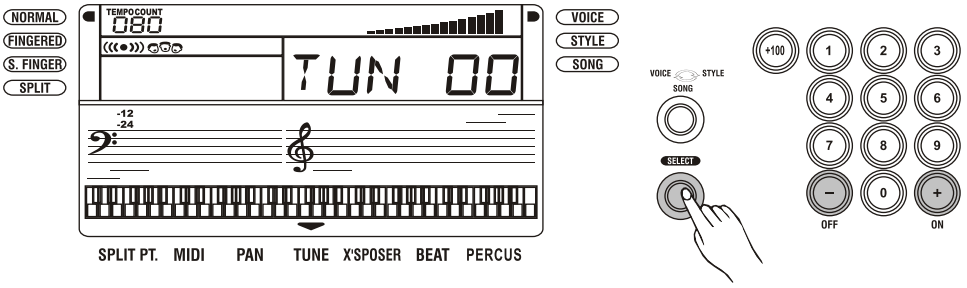
Adjust the pitch of the keyboard voice

Press the **[SELECT]** button as many times as necessary until the arrowhead appears at the above of **X'SPOSER**. Then press the **[+/ON]** or **[-/OFF]** buttons to adjust the pitch of the keyboard in steps of half tones in the corresponding direction.



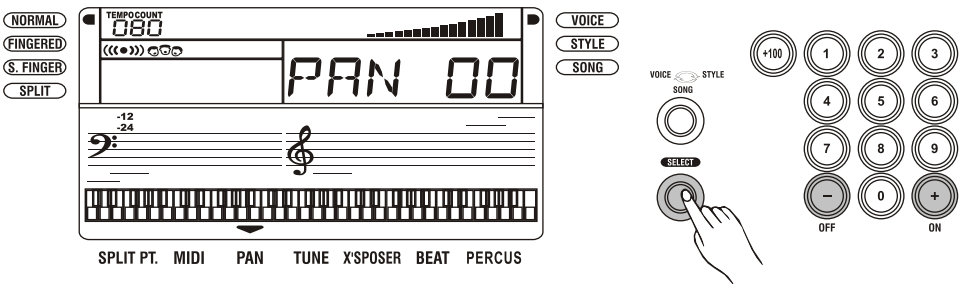
Tune the keyboard

Press the **[SELECT]** button as many times as necessary until the arrowhead appears at the above of **TUNE**. Then press the **[+/ON]** or **[-/OFF]** buttons to change the tuning setting of the keyboard.



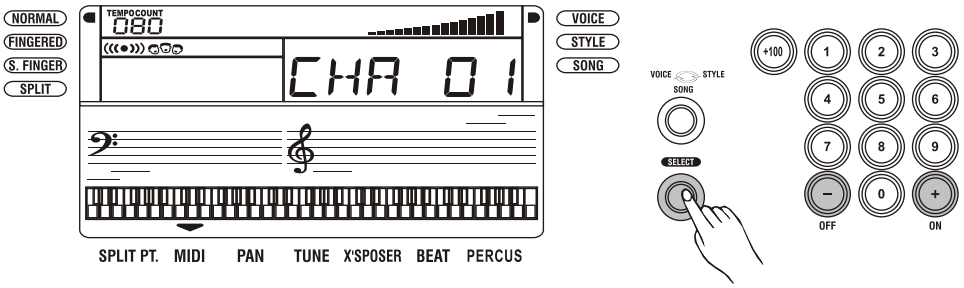
Set the stereo pan position

Press the **[SELECT]** button as many times as necessary until the arrowhead appears at the above of **PAN**. Then press the **[+/ON]** or **[-/OFF]** buttons to set the stereo pan position.



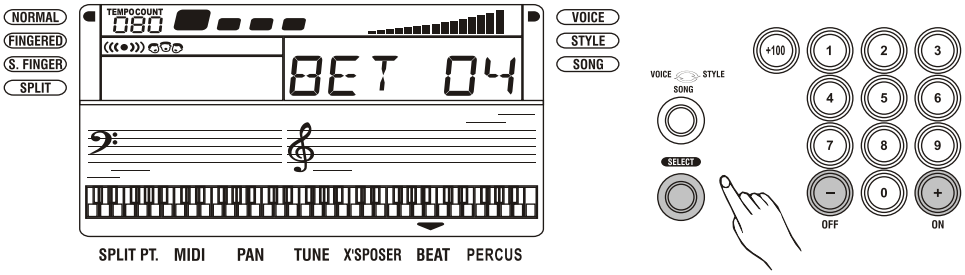
Select the MIDI channel

Press the **[SELECT]** button as many times as necessary until the arrowhead appears at the above of **MIDI**. Then press the **[+/ON]** or **[-/OFF]** buttons to select the MIDI channel.



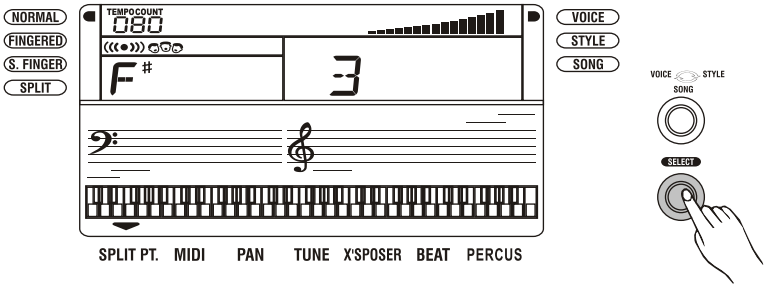
Set the beat level

Press the **[SELECT]** button as many times as necessary until the arrowhead appears above the **BEAT**. Then press the **[+/ON]** or **[-/OFF]** buttons to set the beat level.



Split the keyboard

Press the **[SELECT]** button as many times as necessary until the arrowhead appears next to **SPLIT**. The keyboard splits into lower voice and upper voice. In this mode, you can select the lower voice.



Memorize panel settings

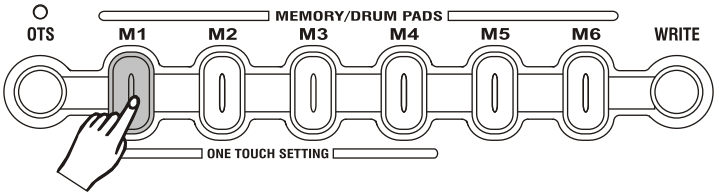
The keyboard has 6 memory pads which can be used to memorize the control-panel setups. You can press one of the **MEMORY/DRUM** pads to recall the setups at any time. Make sure that you have turn off the **PERCUS** function.

Register the settings:

When you have finished the settings, you press and hold the **[WRITE]** button, then press one of the **MEMORY/DRUM** pads. Any data that was previously in the selected location is erased and replace by the new settings.

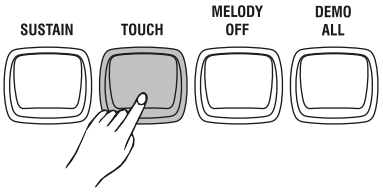
Note:

When you turn off the keyboard, the setting will be erased.



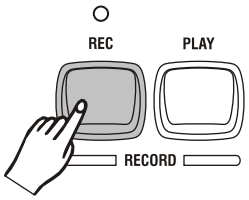
Touch Response keyboard

You can press the **[TOUCH]** button to turn the touch response keyboard function on or off.



Record & playback

You can record your performance simply by pressing the **[RECORD]** button. When you finish the record, press the **[RECORD]** button again. Press the **[PLAY]** button, the keyboard playback of your performance. When you do it again, the previously record will be erased.

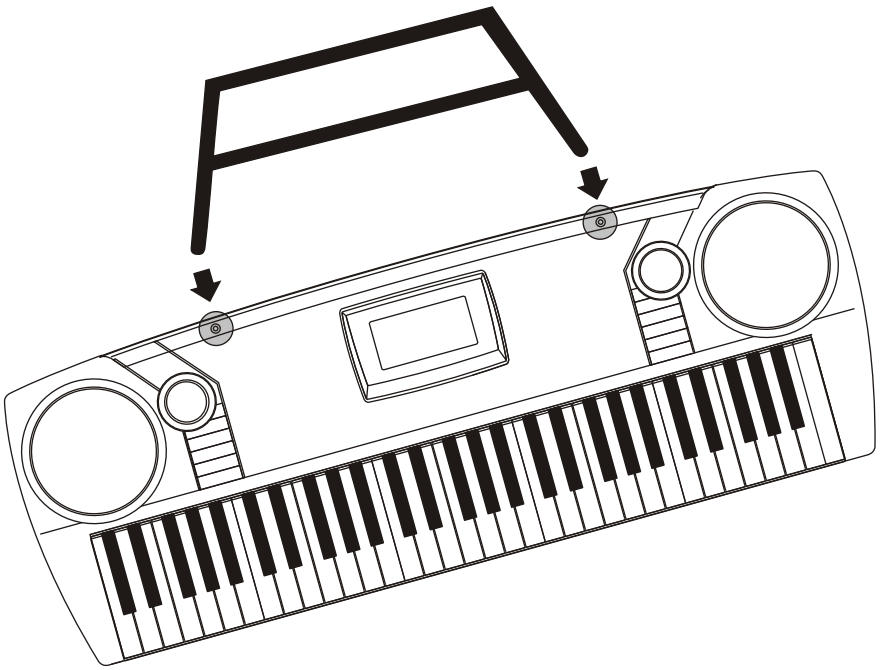


Specifications

Keys:	61 keys with Touch Response
Voices:	136 PCM voices + percussion sounds
Polyphony:	64 note (max.)
Styles:	100 styles
Modes:	Normal, Single Finger, Fingered, Split
Styles control:	Sync, Intro/Ending, FILL IN , Metronome
DEMO song:	100 demo songs
Overall control:	Tune, Pan, Split, Octave Shift, Melody off, Pitch Bend, Mixer, Transposer
Other controls:	Record & Playback, One touch setting
Connectors:	DC 12V, AUX.OUT, SUSTAIN, PHONES, MIDI IN/ OUT/THRU ports
Weight:	5.65 kg
Dimensions:	964 X 347 X 133 mm

Insert Music Stand

The keyboard is supplied with a music stand that can be mounted on the instrument by inserting the two pegs protruding from the bottom edge of the music stand into the two holes located above the front panel. To remove the music stand, lift it up and out.



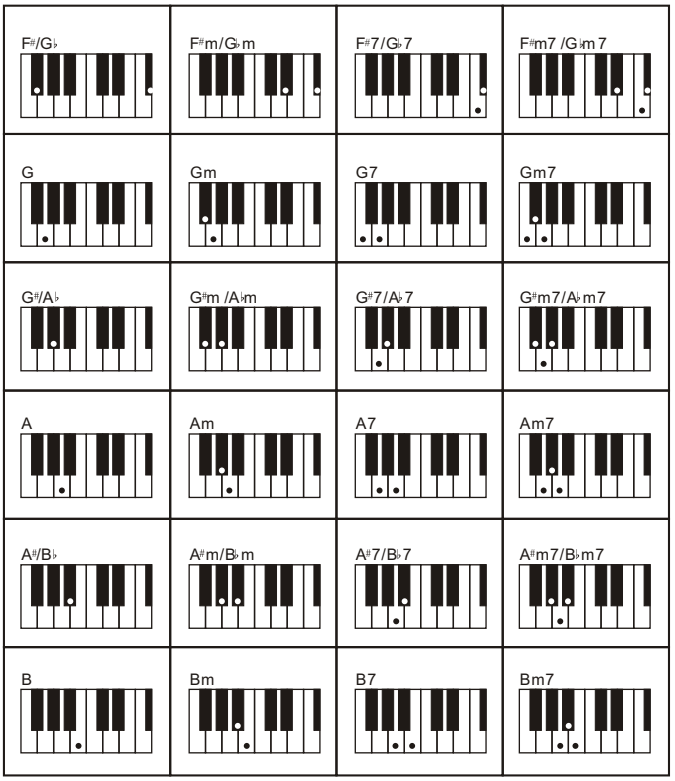
Appendix A
Chord Table

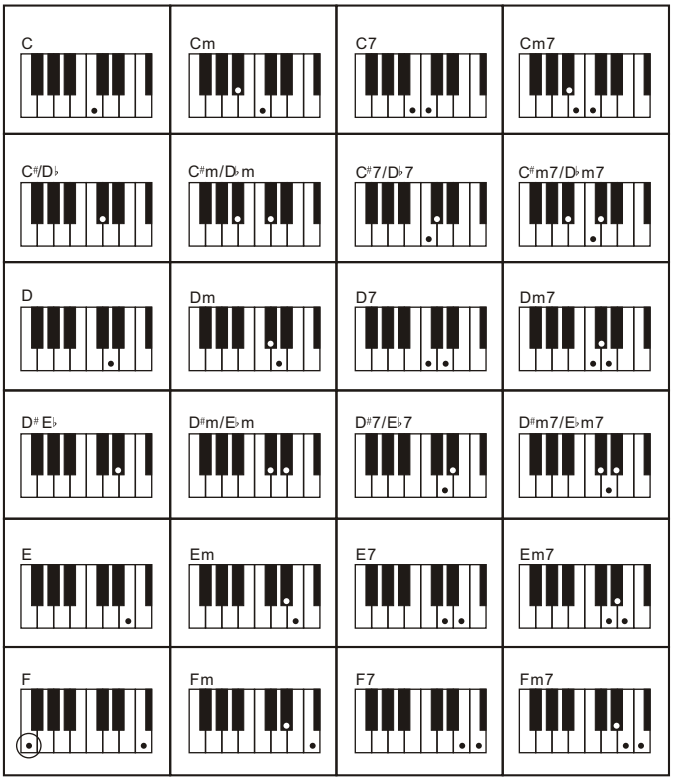
	C	C#	D	D#	E	F
MAJOR (C)						
MINOR (Cm)						
DIMINISHED (Cm)						
AUGMENTED (Caug)						
SEVENTH SUS-PENDED FOURTH (Csus4)						
SIXTH (C6)						
MINOR SIXTH (Cm6)						
SEVENTH (C7)						
MINOR SEVENTH (Cm7)						
MAJOR SEVENTH (Cm7)						
MINOR SEVENTH FLATTED FIFTH ($Cm7^{b5}$)						
SEVENTH SUS-PENDED FOURTH (C7sus4)						
SEVENTH FLATTED FIFTH ($C7^{b5}$)						
MAJOR ADD NINTH (CM(9))						
MINOR ADD NINTH (Cm(9))						

	F#	G	G#	A	A#	B
MAJOR (C)						
MINOR (Cm)						
DIMINISHED (Cm)						
AUGMENTED (Caug)						
SEVENTH SUS-PENDED FOURTH (Csus4)						
SIXTH (C6)						
MINOR SIXTH (Cm6)						
SEVENTH (C7)						
MINOR SEVENTH (Cm7)						
MAJOR SEVENTH (Cm7)						
MINOR SEVENTH FLATTED FIFTH ($Cm7^{b5}$)						
SEVENTH SUS-PENDED FOURTH (C7sus4)						
SEVENTH FLATTED FIFTH ($C7^{b5}$)						
MAJOR ADD NINTH (CM(9))						
MINOR ADD NINTH (Cm(9))						

Appendix B

Single Finger Chord Chart





Appendix C

Demo Songs List

01 SERENATA
02 SERENADA
03 RONDEAU
04 FROHLICHER LANDMAN
05 NOCTURNE
06 PIZZICATO POLKA
07 INACTION
08 CANON
09 ALAIF
10 THE SONG OF ROSE
11 DIE FORELLE
12 NOCTURNE
13 SYMPHONE NO.94 SUPRISE
14 HEIPENPOSLEIN
15 AIR ON THE G-STRING
16 DANCE DE MIRLITONS
17 LONDON DERRY AIR
18 IMPROMPTU
19 JESUS, SAVIOUR PILOT ME
20 2-PARK INVENTION#13 IN A MINOR
21 SWANLAKE
22 TURKISH MARCH
23 LIEDER OHNE WORTE OP.2 NO.6
24 O SOLE MIO
25 JOY TO THE WORLD
26 OTOHEK
27 RED RIVER VALLEY
28 THE SIDEWAY
29 SKIP TO MY SIDE
30 THE RED SARAFAN
31 DANCE OF RUSSIA
32 KATIOLLIA
33 TENNESSEE WALTZ
34 WALTZ OF STARLIGHT
35 GWINE TO RUN ALL NIGHT
36 OLD BLACK JOE
37 THE COLT IS TAKING A WALK
38 COUNTRY
39 JAMBALAYA
40 SUSANNA
41 BRIDGE
42 THE SONG OF SEASON
43 BATTLE HYMNE OF THE REPUBLIC
44 THE OLD GRAY MARE
45 AMERICAN PATROL
46 IN THE RAIN
47 SIPPIN CIDER THROUGH A STRAW
48 HAW-TREE
49 ON LONDON BRIDGE
50 ARE YOU LONESOME TONIGHT
51 ONLY YOU
52 END OF THE WORLD
53 HOUSE OF RISING SUN
54 OLD FOLKS AT HOME
55 WONDERLAND BY LAND
56 THE BLUE-BELLS OF SCOTLAND
57 OVER THE RAINBOW
58 BEAUTIFUL DREAMER
59 IT'S BEEN A LONG, LONG TIME
60 EDELWEISS
61 DREAMING OF HOME AND MOTHER
62 DER DEITCHER'S DOG
63 YOU ARE MY SUNSHINE
64 SILENT NIGHT
65 AMAZING GRACE
66 FIVE HUNDRED MILES
67 HAPPY NEW YEAR
68 IT'S BEGINNING TO LOOK A LOT LIKE CHRISTMAS
69 ALL KIND OF MY EVERYTHING
70 JEANIE WITH THE LIGHT BROWN HAIR
71 MY BONNIE
72 SONG OF THE PEARLFISHER
73 SUMMER PALACE
74 THE STAGE COACH
75 LONG, LONG AGO
76 ANNIE LAURIE
77 KILLING ME SOFTLY WITH HIS SONG
78 LOVE IS BLUE
79 LAST ROSE OF SUMMER
80 THE OLD KING COLE
81 CHRYSANF
82 MAPLE LEAF RAG
83 JUNE SAMBA
84 FUNK
85 I CAN……
86 SEA SHORE
87 GUITAR & SAXPHONE
88 THE HIP-HOP'S NIGHT
89 COUNT DOWN
90 BLUE LUNCH
91 COBWEB
92 WINE
93 JAZZ OLD MAN
94 DARK EYES
95 CARLOS
96 REGGAE
97 THE STING
98 SOUTH MUD BAY
99 GIVE YOU A ROSE
100 FLOWING RILL